

**Translation**

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>27459MC186FD</b>	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. <b>PCT/FR2004/002102</b>	International filing date (day/month/year) <b>06.08.2004</b>	Priority date (day/month/year) <b>08.08.2003</b>
International Patent Classification (IPC) or national classification and IPC <b>C04B18/02</b>		
Applicant <b>LABORATOIRE CENTRAL DES PONTS ET CHAUSSEES</b>		

1.	This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2.	This REPORT consists of a total of <u>6</u> sheets, including this cover sheet.
3.	This report is also accompanied by ANNEXES, comprising: <ul style="list-style-type: none"> <li>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>3</u> sheets, as follows: <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</li> <li><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</li> </ul> </li> <li>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</li> </ul>
4.	This report contains indications relating to the following items: <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Box No. I Basis of the report</li> <li><input type="checkbox"/> Box No. II Priority</li> <li><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li><input type="checkbox"/> Box No. IV Lack of unity of invention</li> <li><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li><input type="checkbox"/> Box No. VI Certain documents cited</li> <li><input type="checkbox"/> Box No. VII Certain defects in the international application</li> <li><input type="checkbox"/> Box No. VIII Certain observations on the international application</li> </ul>

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/FR2004/002102

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-5, 7, 8 \_\_\_\_\_ as originally filed/furnished
- pages\* 6 \_\_\_\_\_ received by this Authority on 11.06.2005 with letter of 08.06.2005
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the claims:
- nos. \_\_\_\_\_ as originally filed/furnished
- nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- nos.\* 1-13 \_\_\_\_\_ received by this Authority on 11.06.2005 with letter of 08.06.2005
- nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the drawings:
- sheets 1/1 \_\_\_\_\_ as originally filed/furnished
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/FR2004/002102

**Box No. V** Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	1-13	YES
	Claims		NO
Inventive step (IS)	Claims	5, 6, 8, 9	YES
	Claims	1-4, 7, 10-13	NO
Industrial applicability (IA)	Claims	1-13	YES
	Claims		NO

## 2. Citations and explanations (Rule 70.7)

## 1. Reference is made to the following documents:

D1: PATENT ABSTRACTS OF JAPAN vol. 1998, no. 01, 30  
January 1998 & JP 09 255402 A (NGK INSULATORS  
LTD), 30 September 1997

D3: GB-A-2 327 669 (LIVERPOOL JOHN MOORES UNIVERSI) 3  
February 1999

2. The present application fails to meet the requirements  
of PCT Article 33(1), since the subject matter of  
claims 1 to 4, 7 and 10 to 13 does not involve an  
inventive step as defined by PCT Article 33(3).

2.1 D1, which is considered to be the prior art closest to  
the subject matter of claim 1, describes (the  
references between parentheses apply to said  
document):

a method for producing a material for the surface  
course in which a mortar is subjected to two curing  
stages prior to being crushed (paragraph [0008]). D1  
indicates that the mortar comprises cement, fly ash,  
sand and plasticizer (paragraphs [0016] and [0018]),  
that the ash has a size less than 40  $\mu\text{m}$  (abstract) and  
that the material is crushed to a particle size less

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
	<p>than 50 mm (paragraph [0024]).</p> <p>Consequently, the subject matter of claim 1 differs from D1 in that the size of the final product is between 2 and 15 mm.</p> <p>The problem that the present invention is intended to solve can be considered to be that of producing artificial aggregate having improved properties for use in road surfaces (mechanical strength, resistance to wear and high roughness).</p> <p>Given that D1 also describes the use of the resulting product for preparing road surfaces (paragraph [0021]), it appears that a person skilled in the art would select a particle size distribution suitable for incorporation of the aggregates in the surface courses. Furthermore, since the present application does not demonstrate any technical effect arising from the specific size of the aggregates, an inventive step cannot be acknowledged.</p> <p>2.2 Dependent claims 2 to 4, 7 and 10 to 13 contain no feature which, when combined with the features of any one of the claims to which they refer, defines subject matter that complies with the PCT requirements of inventive step, for the following reasons:</p> <ul style="list-style-type: none"><li>- The features of dependent claims 2 to 4, 7 and 10 to 12 have already been used for the same purpose in D1. It is obvious for a person skilled in the art to apply these features, with a corresponding</li></ul>

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

effect, in a method for producing artificial aggregates having a size between 2 and 15 mm.

- The feature of dependent claim 13 has already been used for the same purpose in D3. It is obvious for a person skilled in the art to apply this feature, with a corresponding effect, in a method for producing artificial aggregates having a size between 2 and 15 mm.
- The feature of dependent claim 3 is merely one of several obvious options that a person skilled in the art seeking to solve the stated problem might select, depending on each particular case, and without an inventive step being involved.

3. The combination of features of dependent claims 5, 6, 8 and/or 9 is not found in the prior art and cannot be derived in an obvious manner therefrom. The reasons for this are as follows: it appears that, by subjecting the aggregates to a second and a third curing stage, the mechanical strength can be further improved.

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

The amendments added by the letter of 11/06/2005 meet the requirements of Article 34(2)(b). Consequently, the amended claims form the basis for the present report.